

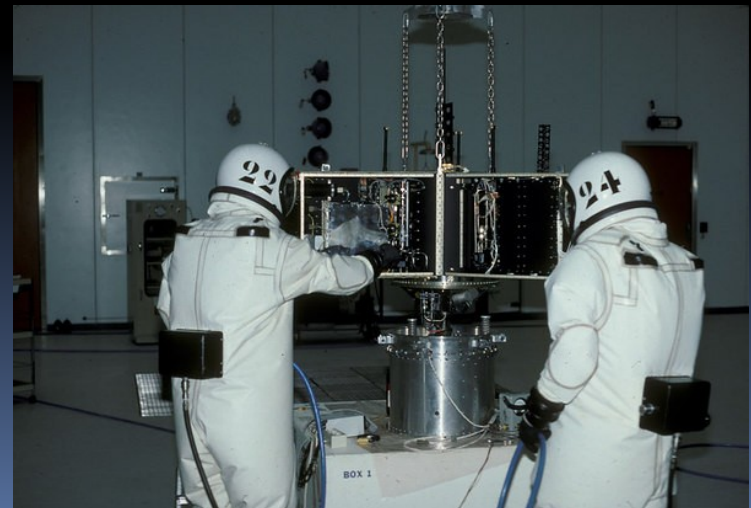
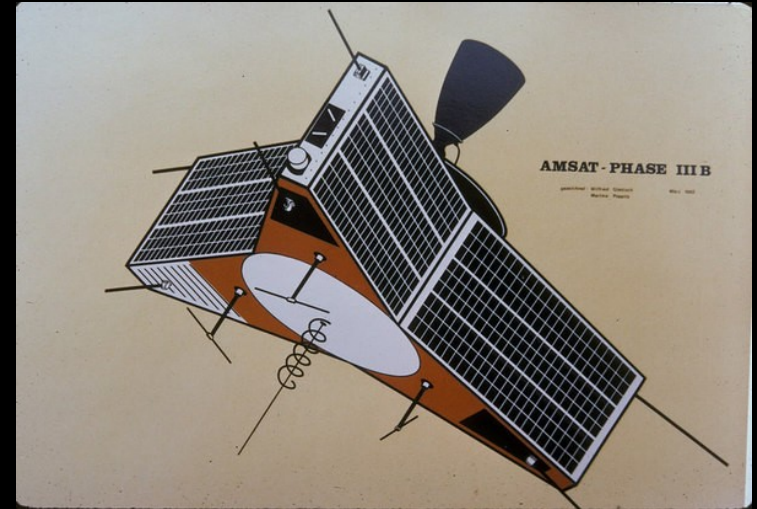


déjà vous all over again
Bob McGwier N4HY
AMSAT V.P. Engineering



AMSAT'S PHASE IV LITE?

Phase III program



AMSAT-DL and AMSAT-NA

- Friends forever?



AMSAT wanted Phase IV badly

Attitude control

Power

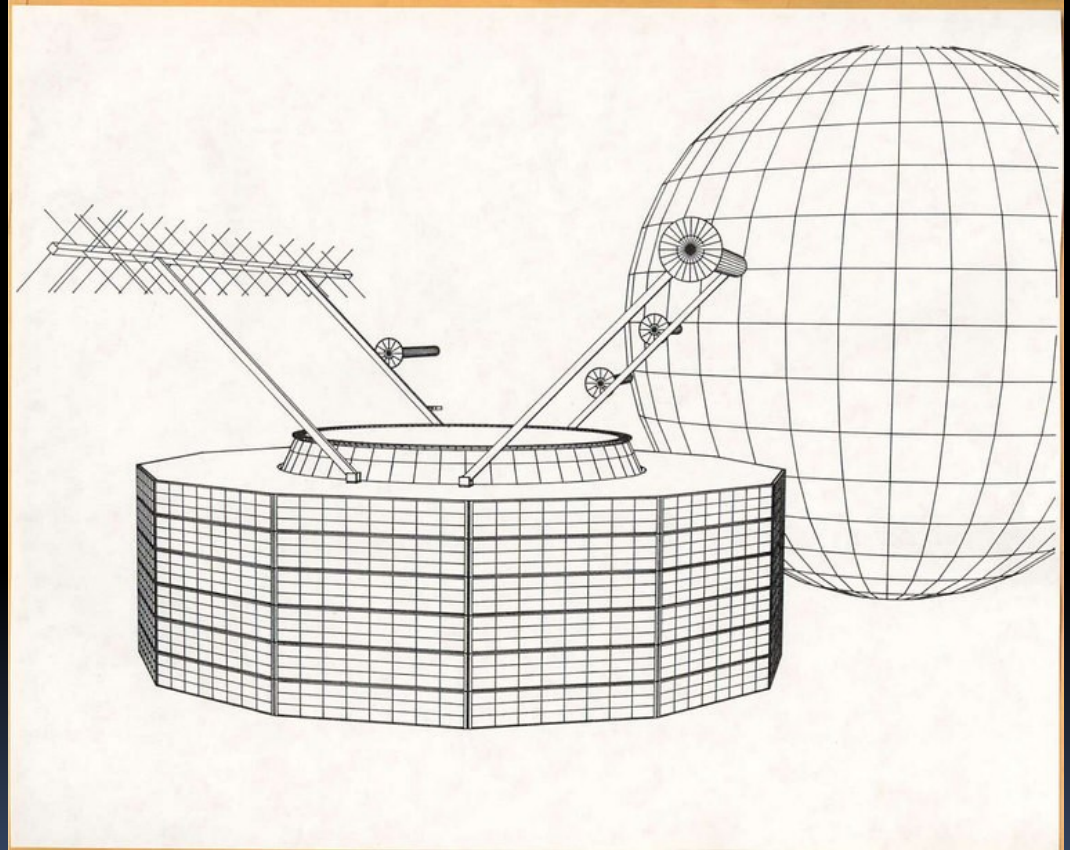
Motor

Antenna Pointing
accuracy a
requirement

Hard Sensors to
design and build

The trapezoidal
cross section
“cone” is the
support for the
main payload!

SERIOUS thermal
control systems
required



AMSAT's Phase IV was started

Heat Pipes

Support Structure

WE GAVE UP!



Karl calls and we answer

AMSAT DL calls a design meeting to consider building another Phase 3 bird. Phase 3D required lots of (MUCH YOUNGER) engineering than AO-10 and AO-13.

Stumpfelstahl
Hotel, Marburg,
Germany, May
1990. P3D first
design meeting.



AMSAT's Phase 3D becomes A0-40

What happens if you take the big cone out of the middle of the spacecraft (as in Phase IV)?

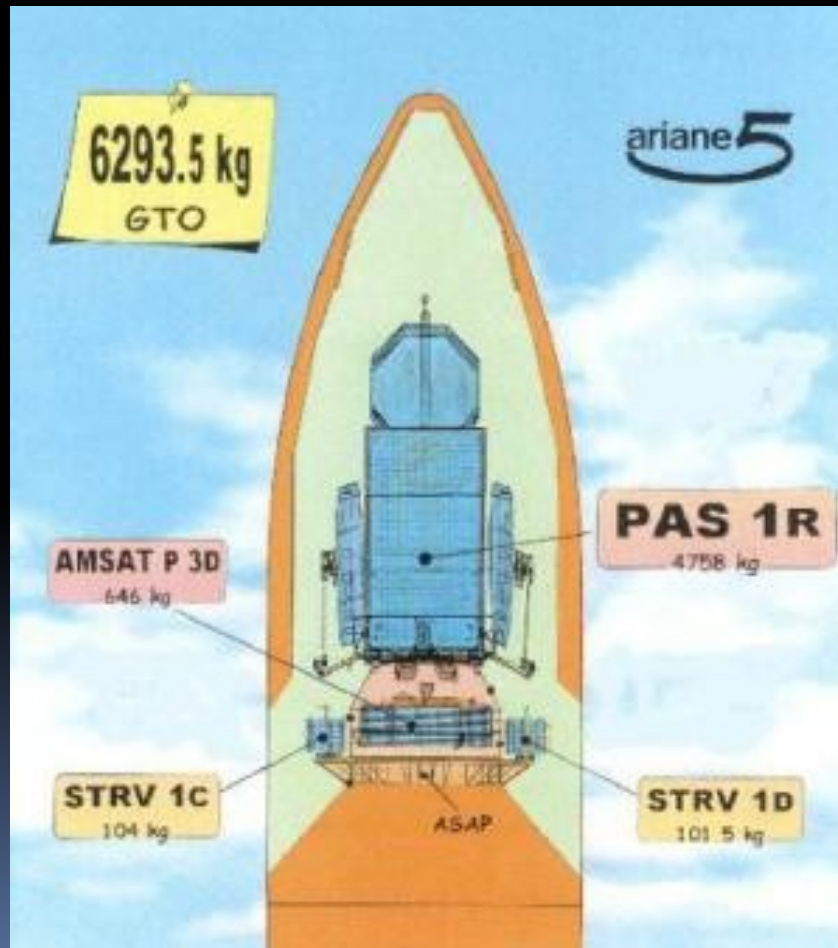
YOU FILL IT UP WITH COMPLEXITY!

You get myriad failures in this extremely complex system.



Lets carry a heavy load

We carried
Panamsat 1 into
orbit!



AMSAT is designing Eagle

- 60 cm on the edges, lots of antenna space



AMSAT's excited engineers





SECONDARY PAYLOAD HOSTING OF SPACE ASSETS ON INTELSAT COMMERCIAL SATELLITES

**STANDARDIZED, RELIABLE AND INEXPENSIVE
ACCESS TO SPACE**

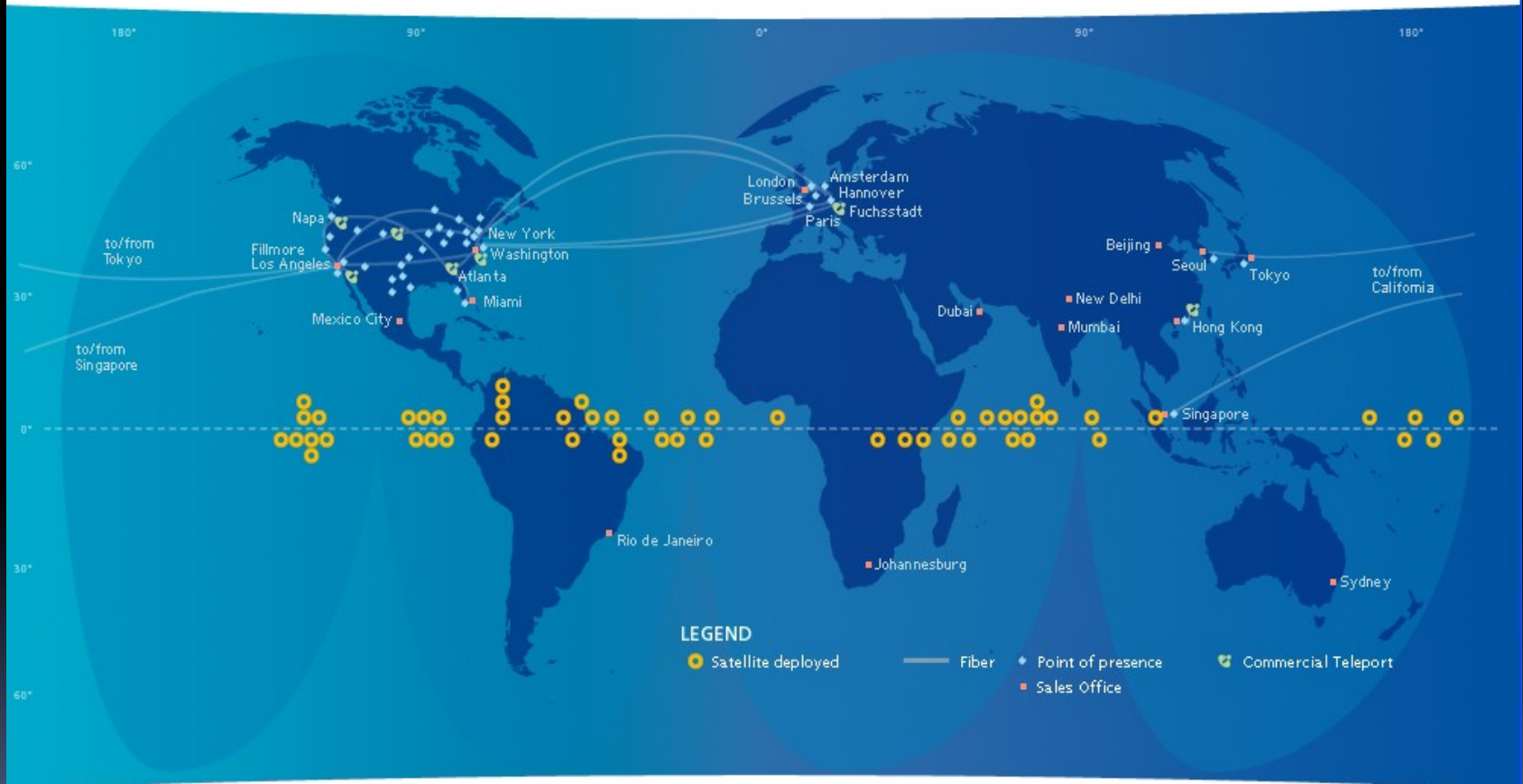


SMALL PAYLOAD RIDESHARE CONFERENCE 2007

**DR. BRYAN BENEDICT
INTELSAT SATELLITE SERVICES**

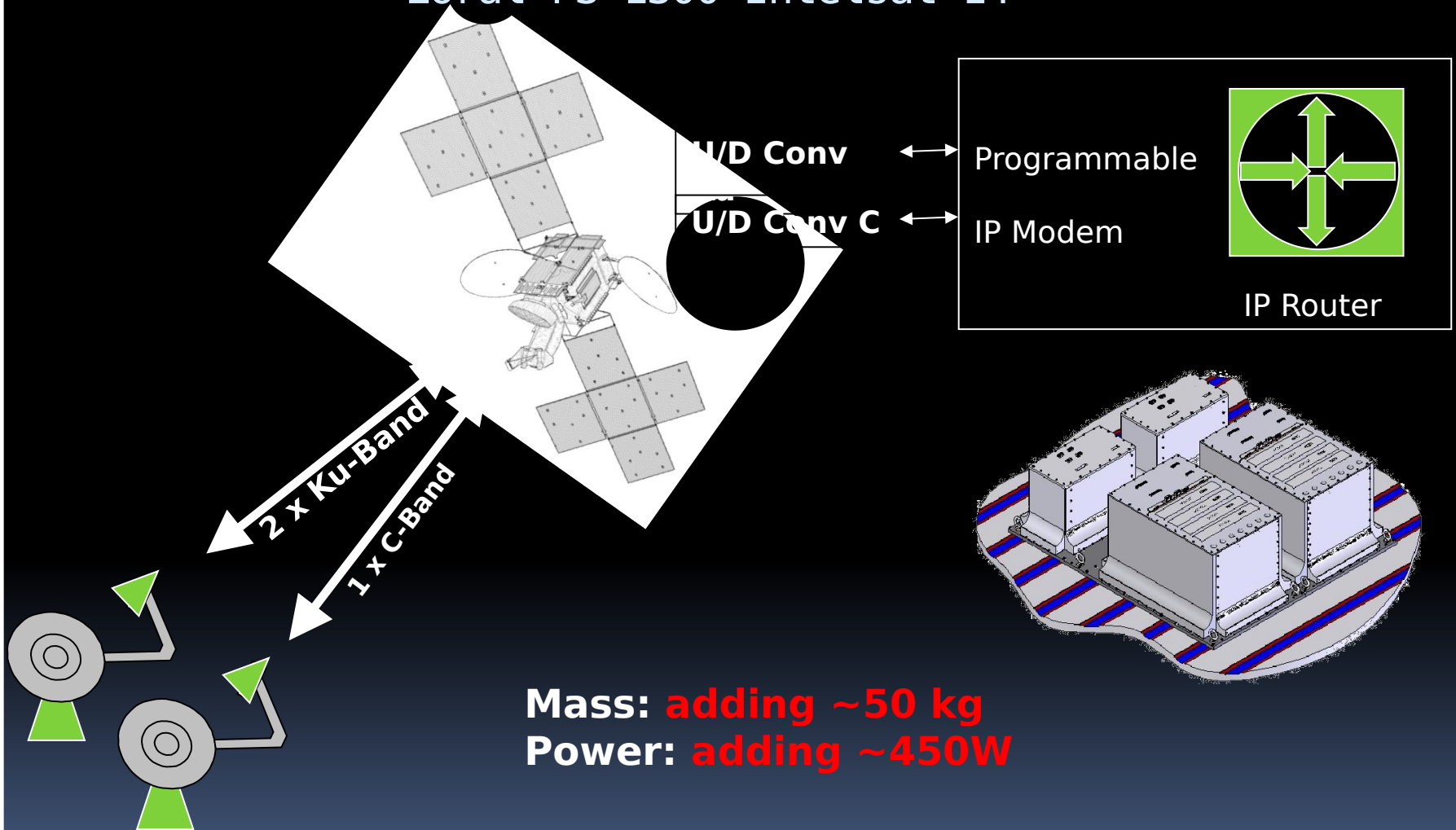
Intelsat subsatellite points

coverage maps: world view



Hosted IRIS – Internet Router In Space

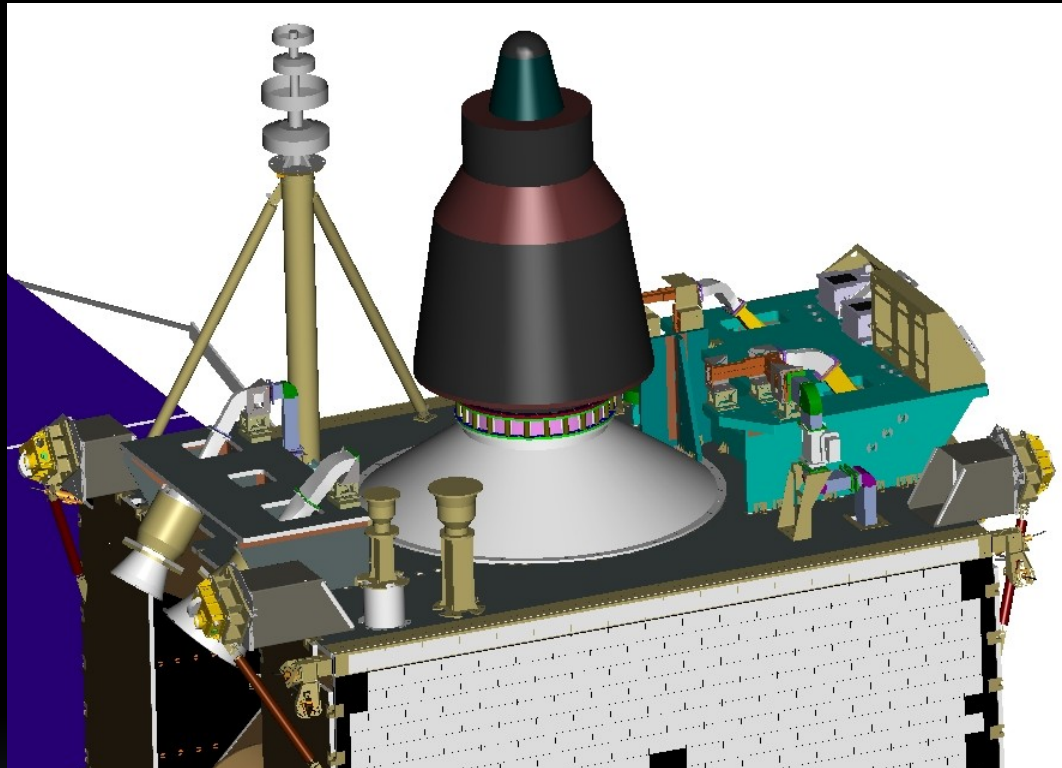
Loral FS-1300 Intelsat-14*



Mass: adding ~50 kg
Power: adding ~450W

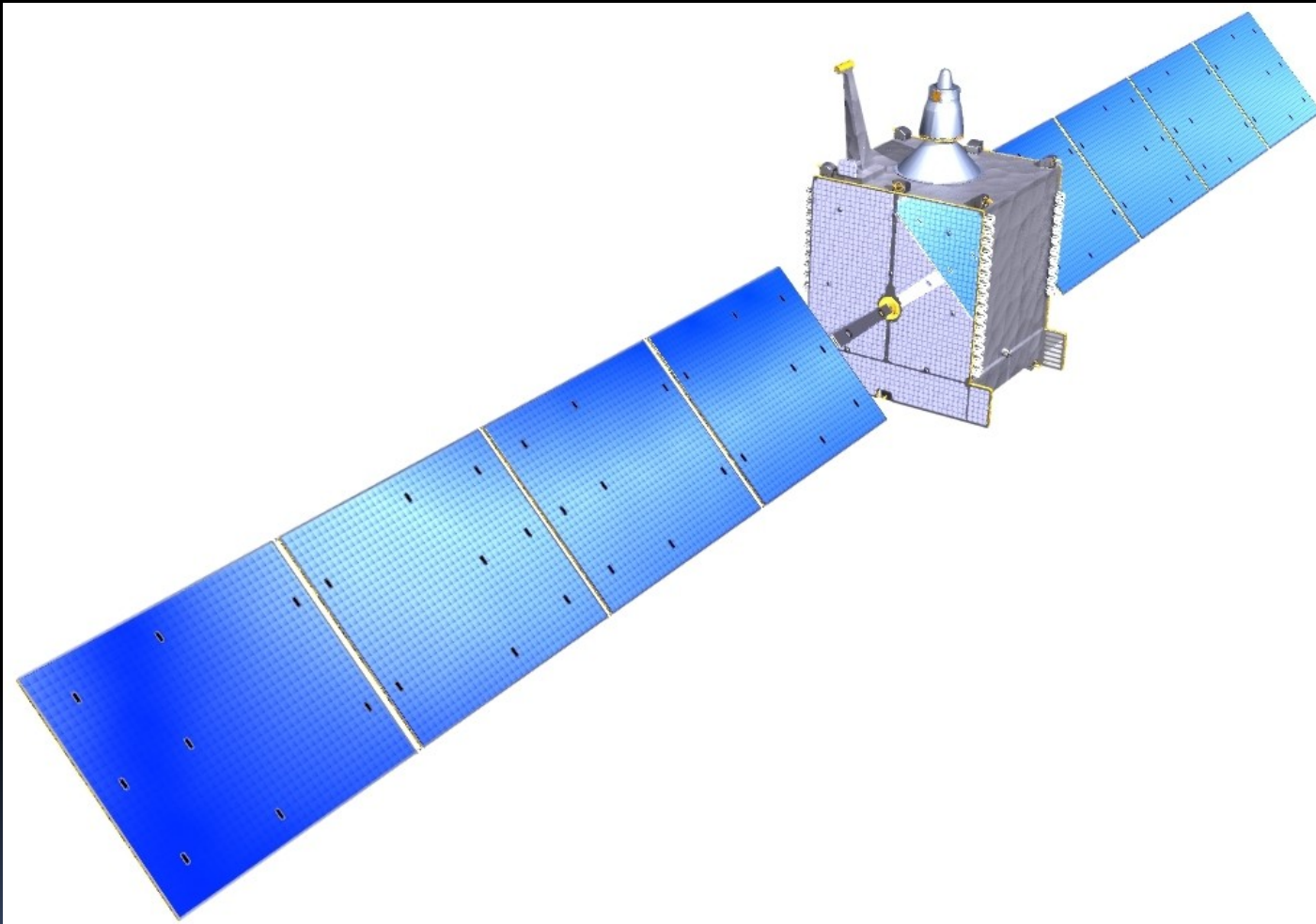
* Will launch 1Q2009 to 45W

Piggyback “Microsat” on Orbital STAR-2 Satellite



“Microsat” mated via LightBand through 15” ESPA and a potential for Phase 3 E

FS-1300 with ESPA Microsat



**Antenna Reflectors not shown for
clarity, before release**



Lee McLamb to the RESCUE